

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. A method of voice interaction with a group of one or more entities~~nearby entity~~, comprising ~~the steps of:~~
 - ~~(a) associating a group of one or more entities with a separately-hosted voice service;~~
 - ~~(b) upon a user approaching near to any entity of the group, automatically initiating provision of the a group-related voice service to that user by joining the user into a communication session established for the service and common to all users of the voice service, the voice service being hosted by a voice-service system with each user that is joined to the session communicating with the voice-service system over a respective communication channel for voice input and output;~~managing the voice service as a single common dialogue interaction with all the users ~~the voice service acting as voice proxy for said group with each user joined to the session, each such user interacting with the service through spoken dialog and hearing at least some of the same voice-service output as all other users joined to the session.~~
2. A method according to claim 1, wherein the voice service selects voice input from one user at any one time in order to determine its next voice output.

3. A method according to claim 2, wherein users do not hear voice input from other users except for the voice input selected by the voice service.

4. A method according to claim 2, wherein the voice service selects the voice input from each user currently joined to the session on a sequential basis.

5. A method according to claim 2, wherein the selected voice input is the first input received in response to a completed voice output turn by the voice service.

6. A method according to claim 2, wherein the voice service content is divided into sections each comprising at least one voice input and at least one voice output, the user providing the selected voice input being kept the same throughout the delivery of a section.

7. A method according to claim 1, wherein each user connected to the session hears voice input from all other such users and all voice output by the service.

8. A method according to claim 1, wherein the service provides voice output specific to a particular entity of said group, this output being provided only to the users near that entity.

9. A method according to claim 1, wherein the voice service is effected by the serving of voice pages in the form of text with embedded voice markup tags to a voice browser of the voice service system, the voice browser interpreting these pages and carrying out speech recognition of selected user voice input,

text to speech conversion to generate voice output, and dialog management; the voice browser being disposed between a voice page server and an arrangement for selecting voice input from amongst the input received from all users and for distributing to the users the voice output of the voice browser.

10. A method according to claim 1, wherein ~~in step (b)~~ the initiating of service provision is effected by the transfer of service contact data to user equipment carried by the user, the user equipment then using the contact data to contact the voice service over a wireless connection.

11. A method according to claim 1, wherein ~~in step (b)~~ the initiating of service provision is effected by the transfer of user contact data from user equipment to a receiving device in the vicinity of the entity concerned, the user contact data being passed from the receiving device to the voice service to enable the latter to contact user equipment over a wireless connection.

12. A method according to claim 1, wherein ~~in step (b)~~ the initiating of service provision is effected by determining the relative locations of the user and said entities and initiating the voice service only when the user moves close to a said entity.

13. - 15. (cancelled)

16. A method according to claim 1, wherein voice service sound output to at least one user joined to the communication session is through multiple sound output devices in the form of headphones worn by the user and controlled in dependence on the

relative positions of the user and entity and rotations of the user's head so that the sound output appears to be originating from said local entity emanate from the location of said local entity independently of the user's position and head orientation relative to the entity.

17. - 18. (cancelled)

19. A system for enabling verbal communication on behalf of a group of one or more entities local entity with a nearby users, the system comprising:

for each user, user-carried equipment comprising an audio output arrangement, an audio input arrangement, and a communications subsystem; either forming part of equipment carried by the user, or located in the locality of the local entity;

~~— an audio input arrangement either forming part of equipment carried by the user, or located in the locality of the local entity;~~

~~— a communication arrangement over which signals can be transferred respectively to and from the audio output and input arrangements;~~

a voice service arrangement for providing a group-related voice service ~~entity but separately hosted~~, the voice service arrangement comprising:

a communications subsystem for establishing respective communication channels with each user-carried equipment for user voice input and voice-service output,
a session control arrangement for joining multiple users into a communication session established for the service and common to all users of the voice service, and

a dialogue interaction manager for managing the voice service as a single common dialogue interaction with all users joined to the session whereby to enable such users to contemporaneously hear at least some of the same voice-service output;

~~being arranged to deliver the voice service by providing voice input and output signals via the communications arrangement to the audio input and output arrangements thereby enabling a user to interact with the voice service through spoken dialog; and~~

a service initiation arrangement for automatically initiating voice service delivery to a user approaching any entity of said group by causing said session control arrangement to join the user to the communication session of the voice service with a communication channel being established between the user's equipment and the voice service arrangement. ~~to a user near the local entity;~~

~~the voice service arrangement including a session control arrangement for joining multiple users each near the same local entity or an entity of a group of associated entities, into a common voice-service communication session in respect of the same local entity or group of entities whereby such users hear at least some of the same voice-service output.~~

20. A system according to claim 19, wherein the voice service arrangement further comprises an input selection ~~the session control means arrangement is operative to for selecting~~ voice input from one user at any one time for use by the dialogue interaction manager ~~voice service~~ in determining its next voice output.

21. A system according to claim 20, wherein the voice service arrangement ~~session control means~~ is operative only to pass on voice input from any user to other users when that voice input is selected by the input selection arrangement for use by the dialogue interaction manager ~~voice service~~.

22. A system according to claim 20, wherein the input selection arrangement ~~session control means~~ is operative to select voice input from each user currently joined to the session on a sequential basis.

23. A system according to claim 20, wherein the input selection arrangement ~~session control means~~ is operative to take as the selected voice input the first input received in response to a completed voice output turn by the voice service.

24. A system according to claim 20, wherein the voice service content is divided into sections each comprising at least one voice input and at least one voice output, the dialogue interaction manager ~~session control means~~ being operative to keep unchanged the user providing the selected voice input throughout the delivery of a section.

25. A system according to claim 19, wherein the ~~session control means~~ voice service arrangement is operative to pass to each user connected to the session voice input from all other such users and all voice output by the service.

26. A system according to claim 19, wherein the voice service arrangement is arranged to provide voice output specific to a particular entity of said group and, ~~the session control means~~

~~being operative~~ to provide such output only to the users near that entity.

27. A system according to claim 19, wherein the voice service arrangement further comprises:

- a voice page server for serving voice pages in the form of text with embedded voice markup tags; and
- a voice browser comprising:
 - a speech recognizer for carrying out speech recognition of user voice input received as voice signals;
 - a dialog manager, ~~constituting said dialog interaction manager,~~ for effecting dialog control on the basis of output from the speech recognizer and pages served by the voice page server; and
- a text-to-speech converter operative to convert voice pages into voice output signals under the control of the dialog manager;

the voice browser being operatively disposed between the voice page server and the session control ~~means~~ arrangement.

28. A system according to claim 19, wherein the service initiation ~~means~~ arrangement comprises a transfer arrangement ~~means~~ for transferring service contact data to said user-carried equipment-carried by the user, and a contact arrangement ~~means~~ at the user equipment for using the contact data to contact the voice service arrangement using said ~~over the communication means~~ subsystem of the equipment.

29. A method according to claim 19, wherein the service initiation ~~means~~ arrangement comprises a receiving device in the

vicinity of the or each entity, and a transfer arrangement ~~means~~ for transferring user contact data from user equipment to the receiving device, the receiving device being operative to pass the contact data ~~over the communication means~~ to the voice service arrangement to enable the latter to contact the user equipment over a wireless connection.

30. A method according to claim 19, wherein the service initiation ~~means~~ arrangement comprises a comparison ~~means~~ arrangement for determining and comparing the locations of the user and said entities, and an arrangement ~~means~~ for initiating the voice service only when the user moves close to a said entity as determined by the comparison ~~means~~ arrangement.

31. - 33. (canceled)

34. A system according to claim 19, wherein said audio output ~~means~~ arrangement comprises for at least one user, multiple sound output devices in the form of headphones of user-carried equipment, and a controller ~~means~~ operative in dependence on the relative positions of the user and entity and rotations of the user's head, to control ~~for controlling~~ the voice-service sound output provided via said headphones such that the sound output it appears to be originating from said local entity. emanate from the location of said local entity independently of the user's position and head orientation relative to the entity.

35. - 36. (canceled)

37. A method according to claim 1, wherein said group comprises multiple entities each located at a different respective location, users at or near different ones of the entities being joined into the same said communication session.

38. A system according to claim 19, wherein said group comprises multiple entities each located at a different respective location, the system being arranged to join users at or near different ones of the entities into the same said communication session.